What is claimed is:

1. A pressure sensitive adhesive having a rubber phase, said adhesive comprising:

(a) 100 parts by weight of a polymodal asymmetric elastomeric block copolymer;

(b) at least one tackifier in an amount sufficient to raise the calculated Fox T_g of the rubber phase of said adhesive to at least 245°K;.

(c) 0 to about 50 parts by weight of a crosslinking agent; and

(d) 0 to about 300 parts by weight of a plasticizer;

wherein said polymodal asymmetric elastomeric block copolymer has the formula Q_n Y and comprises from about 4 to about 40 percent by weight of a polymerized monovinyl aromatic compound and from about 96 to about 60 percent by weight of polymerized conjugated diene, wherein:

Q represents an individual arm of said block copolymer and has the formula S-B;

n represents the number of arms Q in said block copolymer and is a whole number of at least 3; and

Y is the residue of a multifunctional coupling agent; and further wherein:

(a) S is a nonelastomeric polymer segment endblock of a polymerized monovinyl aromatic homopolymer, there being at least two different molecular weight endblocks in said copolymer, a higher molecular weight endblock and a lower molecular weight endblock, wherein:

(i) the number average molecular weight of said higher molecular weight endblock $(Mn)_H$ is in the range of from about 5,000 to about 50,000;

(ii) the number average molecular weight of said lower molecular weight endblock $(Mn)_L$ is in the range of from about 1,000 to about 10,000; and

(iii) the ratio $(Mn)_H$ /$(Mn)_L$ is at least 1.25; and

(b) B is an elastomeric polymer segment midblock which connects each arm to the residue of a multifunctional coupling agent (Y) and comprises a polymerized conjugated diene or combination of conjugated dienes, and

wherein said adhesive has a rubber phase exhibiting a calculated Fox T_g of at least 245°K and said adhesive forms a high strength bond to low surface energy surfaces.

2. The pressure sensitive adhesive according to claim 1, wherein said adhesive is solvent free with only up to a 20% solvent content.

3. The pressure sensitive adhesive according to claim 1, wherein the rubber phase of said adhesive has a calculated Fox T_g of at least 250°K.

4. The pressure sensitive adhesive according to claim 1, wherein the rubber phase of said adhesive has a calculated Fox T_g with an upper limit of less than 300°K.

5. The pressure sensitive adhesive according to claim 1, wherein said adhesive exhibits a 180° peel strength on a low surface energy substrate of at least about 20 N/dm.

6. The pressure sensitive adhesive according to claim 5, wherein said adhesive exhibits a 180° peel strength on a low surface energy substrate of at least about 60 N/dm.

7. The pressure sensitive adhesive according to claim 1, wherein said adhesive is in the form of a film.

8. The pressure sensitive adhesive according to claim 1 in combination with a backing having first and second major surfaces, and said adhesive is coated on at least a portion of at least one of the major surfaces.

9. The pressure sensitive adhesive according to claim 8, wherein said backing is a foam core.

10. The pressure sensitive adhesive according to claim 8, wherein said backing further comprises a release surface.

11. The pressure sensitive adhesive according to claim 8, wherein said backing is a foam tape core made of the same or a different polymodal asymmetric elastomeric block copolymer, and said adhesive is in the form of at least one co-extruded layer on said foam tape core.

12. The pressure sensitive adhesive according to claim 8, wherein said backing is an acrylic foam tape core, and said adhesive is in the form of at least one co-extruded layer on said foam tape core.

13. The pressure sensitive adhesive according to claim 8, wherein said backing is in the form of a foam, at least one of the major surfaces of which is substantially smooth having an Ra value less than about 75 micrometers, as measured by laser triangulation profilometry, and said foam comprises a plurality of microspheres, at least one of which is an expandable polymeric microsphere.

14. The pressure sensitive adhesive according to claim 1, wherein said adhesive is in the form of a foam having at least one substantially smooth major surface having an Ra value less than about 75 micrometers, as measured by laser triangulation profilometry, and said foam comprises a plurality of microspheres, at least one of which is an expandable polymeric microsphere.

15. The pressure sensitive adhesive according to claim 1, wherein said adhesive is in the form of a foam having at least one substantially smooth major surface having an Ra value less than about 75 micrometers, as measured by laser triangulation profilometry, and said foam comprises a plurality of said expandable polymeric microspheres.

16. The pressure sensitive adhesive according to claim 15, wherein said foam is substantially free of broken polymeric microspheres.

17. The pressure sensitive adhesive according to claim 15 in combination with at least one other polymer composition in the form of a plurality of discrete structures bonded to or embedded in said foam.

18. The pressure sensitive adhesive of claim 1, wherein said adhesive exhibits a 90° peel strength on a low surface energy substrate of at least about 50 N/dm.

19. The pressure sensitive adhesive of claim 18, wherein said adhesive exhibits a 90° peel strength on a low surface energy substrate of at least about 75 N/dm.

20. The pressure sensitive adhesive of claim 1, wherein said tackifier is a low acidic or neutral tackifier.

21. The pressure sensitive adhesive of claim 1, wherein said tackifier has a T_g in the range of from about -50°C to about 200°C.

22. The pressure sensitive adhesive of claim 1, wherein said tackifier has a softening point of above 80°C.

23. The pressure sensitive adhesive of claim 1, wherein said at least one tackifier is selected from the group consisting of hydrogenated mixed aromatic tackifiers, aliphatic/aromatic hydrocarbon liquid tackifiers; napthenic oils, mineral oils, and a mixture of one or more thereof.

24. The pressure sensitive adhesive of claim 1, wherein said adhesive comprises in the range of from about 50 parts to about 350 parts by weight of said at least one tackifier.

25. The pressure sensitive adhesive of claim 1, wherein said adhesive comprises in the range of from about 70 parts to about 300 parts by weight of said at least one tackifier.

26. The pressure sensitive adhesive according to claim 1, wherein the polymodal asymmetric elastomeric block copolymer is crosslinked.

27. The pressure sensitive adhesive according to claim 26, wherein said adhesive is a radiation crosslinkable composition.